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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,427	07/09/2001	Kevin James Curie	24180-124004	8562

7590

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EXAMINER

DYE, RENA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No. 09/901,427	Applicant(s) CURIE ET AL.	
	Examiner Rena L. Dye	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-19 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-19 and 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5-15,17-19 and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilpers et al. (H1419) in view of WO 97/47468.

Wilpers et al. teaches that it is an object of his invention to provide polymeric compositions having and exhibiting improved bonding to other incompatible polymeric materials, particularly to polar materials. It is a further object to provide a simple and economical method of bonding incompatible polymeric materials, but further providing a polymeric composition comprising functionalized high melt flow polyolefin (adhesive) and unfunctionalized polyolefin. This composition exhibits improved adhesion to polar materials. Functionalization is accomplished by reacting with a carboxylic acid anhydride, which can be exemplified by maleic anhydride, and is the preferred functional group (column 1, lines 39-55; column 2, lines 47-51). Example 1 illustrates a composition including an unmodified polypropylene with a modified polybutylene (Example 1). The compounds have numerous uses in producing films, molded parts cups, trays and containers. Improved adhesion is exhibited, especially towards polar substrates, such as EVOH copolymer and polyamides (nylons) (column 2, lines 52-59). Claim 3 of the Wilpers patent broadly recites a polymer composition having and

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exhibiting improved bonding and printability comprising functionalized polyolefins having a melt flow of up to 1500 g/min., and unfunctionalized polyolefins.

Since Wilpers et al. specifically teaches containers, and it is well known in the art to biaxially stretch containers during the molding process to provide strength, it would have been obvious to one having ordinary skill in the art to have biaxially stretched the container taught by Wilpers et al.

Further, as broadly as the invention is recited, the claims would include the blend taught by Wilpers et al. which includes an unmodified polypropylene with a modified polybutylene directly bonded to the EVOH/nylon layer. The teaching of unfunctionalized polyolefins having a melt flow of up to 1500 g/min would have included functionalized polypropylene as disclosed in the present patent application.

Wilpers does not specifically teach the claimed amount of maleic anhydride. WO 97/47468 teaches a laminate material used in making lightweight structural parts, comprised of a multilayered film a polyamide layer and polyolefin layers bonded to either side of the polyamide layer, wherein the polyolefin layer comprises a blend of at least one olefin polymer and an adhesive, which adhesive comprises at least one polyolefin having at least one functional moiety of an unsaturated carboxylic acid or anhydride thereof (page 4, first full para.). The polyolefins used can include polymers such as polypropylene and polybutylene (page 9, lines 10-17). Suitable adhesives include modified polyolefin composition composed of a polyolefin having at least one functional moiety such as maleic anhydride. The modified polyolefin composition comprises from about 0.001 to about 10 weight percent of the functional moiety.

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Since WO 97/47468 teaches a similar laminate structure to that of Wilpers, it would have been obvious to one having ordinary skill in the art to have used the amount taught by WO 97/47468 in making the container of Wilpers to have provided adequate adhesion between layers. In view of the teachings or the applied prior art, it is the Examiner's position that the combination of art would have rendered obvious a biaxially stretched container having the recited layers and further inherently possessing a haze value of less than 29% measured through a section of the container having a total thickness of greater than approx. 15 mils.

3. Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilpers in view of WO 97/47468 as applied to claims 1-3,5-15,17-19 and 21-31 above, and further in view of Speer et al. (US 5,529,833).

Wilpers et al. and WO 97/47468 have been previously discussed above. The combination of references fails to specifically teach the second layer comprising cobalt.

Speer teaches multilayered structures for packaging foods using oxygen scavengers such as cobalt. In multilayered articles the oxygen scavenging layer may be included with layers such as barrier layers, including EVOH or polyamides (Abstract; column 7, lines 11-22).

It would have been obvious to one having ordinary skill in the art to have provided an oxygen scavenger, such as a cobalt catalyst within the barrier layer of Wilpers et al., since Wilpers et al. teaches the making of cups, trays or containers, which is well known packaging structures. The cobalt catalyst would provide the added benefit of providing additional oxygen barrier property to enclosed food contents.

Response to Arguments

4. In response to applicant's arguments the Wilpers et al. reference specifically teaches the claimed adhesive. One of ordinary skill in the art would have looked to a secondary reference for a specific teaching as to the claimed amount of adhesive for bonding the same/similar layers as that taught by Wilpers. The term "reheat" now added to the present claims adds nothing materially that would further distinguish the claims over the combination of the prior art of record. Applicant argues:

"blow molding in the rubbery state breaks many of the bonds between layers in the preform. One of ordinary skill in the art understands that up to 90% of the bonding strength between layers is lost due to the breaking of bonds during reheat stretch blow molding. Because of the loss of bonding strength experienced with reheat stretch blow molding one of ordinary skill in the art understands that a preform must have substantially more bonding strength than required by the final blown product to compensate for the 90% loss of bonding strength during blow molding. Where the bonding strength is provided by an adhesive, that compensation is achieved by increased amounts of adhesive."

Applicant appears to rely merely on opinion to support his position. In the absence of convincing argument or factual evidence to the contrary, it remains to be the examiner's position that the present claims are unpatentable over the applied prior art of record. Since Wilpers et al. teaches the identically claimed layers, and one having ordinary skill in the art, knowing that blow molding is conventional and well known in the container art, would have known how to have adjusted the amount of adhesive for bonding the layers. Since WO 97/47468 (Tsai) teaches a similar laminate structure to that of Wilpers, it would have been obvious to one having ordinary skill in the art to have looked to WO 97/47468 as a guide for bonding similar incompatible layers in making the container of Wilpers, to have provided adequate adhesion between layers.

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The examiner maintains the position that biaxially orienting/stretching of the container of Wilpers would have been well known to one having ordinary skill in the art as a way of manufacturing a container.

The Yamada et al. (US 4,182,457) reference is cited of interest for its teaching that it is well known that when a thermoplastic resin is drawn at a relatively low temperature, namely at a temperature lower than the melting point or softening point of the resin or a temperature just above the melting point or softening point of the resin, as a result of orientation of the polymer chain or crystal, such properties as rigidity, mechanical strength, gas barrier property and transparency can be improved. These improvements can be practically utilized in biaxially drawn blow bottles (Background – column 1, lines 14-24). Therefore, one of ordinary skill in the art would have deemed biaxial orientation conventional, and obvious to have molded the container of Wilpers in such a manner. It is also noted that biaxial orientation improves transparency as disclosed by Yamada et al.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

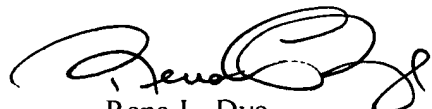
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rena L. Dye whose telephone number is 571-272-3186. The examiner can normally be reached on Monday-Friday 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L. Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Rena L. Dye
Primary Examiner -SEE
Art Unit 1774
9/18/06

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